

User Guide

ARCHOS AVCam300

3.3 Megapixel Digital Still Camera and Digital Camcorder for ARCHOS AV300 series

ARCHOS
Think smaller



User Guide for ARCHOS AVCam 300 Digital Still and Video camcorder v1.0 (no. 102 433)

Please visit our web site to download the most recent manual and software for this product

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Warranty and Limited Liability

This product is sold with a limited warranty and specific remedies are available to the original purchaser in the event the product fails to conform to the limited warranty. Manufacturer's liability may be further limited in accordance with its sales contract.

In general, the manufacturer shall not be responsible for product damages caused by natural disasters, fire, static discharge, misuse, abuse, neglect, improper handling or installation, unauthorized repair, alteration or accident. In no event shall the manufacturer be liable for loss of data stored on disk media.

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Please see your sales contract for a complete statement of warranty rights, remedies and limitation of liability.

Furthermore, warranty does not apply to:

1. **Damages or problems resulting from misuse, abuse, accident, alteration or incorrect electrical current or voltage.**
2. **Any product tampered-with or damaged warranty seal or serial number label.**
3. **Any product without a warranty or serial number label.**
4. **Batteries and any consumable items delivered with or in the equipment.**

Warnings and Safety Instructions

CAUTION

To prevent risks of electric shock, this unit must only be opened by qualified service personnel. Power off and disconnect the power supply cable before opening the unit.

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

Use of this product is for personal use only. Copying CDs or loading music, video, or picture files for sale or other business purposes is or may be a violation of copyright law. Copyrighted materials, works of art, and/or presentations may require authorization to be fully or partially recorded. Please be aware of all such applicable laws concerning the recording and use of such for your country and jurisdiction.

FCC Compliance Statement

FCC Compliance

This equipment has been tested and found to comply with limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Note: During file transfer or in the PC mode, if the End User Terminal (EUT) or computer suddenly freezes or does not respond, it may be due to the electrostatic phenomenon. Please follow the procedures below to recover the operation:

Unplug the USB cable from the End User Terminal (EUT)

Close the software application in the computer (or re-boot the computer if necessary)

Re-connect the USB cable to the End User Terminal (EUT)

In case of Electrostatic Discharge, the AV300 may lose function. Just power off and on in order to restore.

CAUTION : Modifications not authorized by the manufacturer may void users authority to operate this device.

FCC Part 15 - Operation is subject to the following two conditions:

1. This device may not cause harmful interference;
2. This device must accept any interference received including interference that may cause undesired operation.

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Disclaimer of warranty: to the extent allowed by applicable law, representations and warranties of non-infringement of copyrights or other intellectual property rights resulting from the use of the product under conditions other than as here above specified, are hereby excluded.

1 The AVCam300

Dear Customer,

We'd like to thank you for your choice of this ARCHOS camera add-on module for your AV300 series Personal Video Player (PVP). By adding this camera to your AV300, you now have all the functionality of a 3.3 Megapixel Digital still camera AND a video camcorder. Please be careful to treat it like you would a regular camera by handling it carefully and cleaning the lens with a cleaner specific to camera lenses.

Wishing you the best Video, Music, and Photo experience,

The ARCHOS TEAM

Connecting the AVCam300 Camera

When connecting the AVCam300 to your AV300, you must be sure that the AV300 is off. Never plug in or remove the AVCam from a device that is on. Remove the rubber cover on the left side of the AV300 to expose the mini-centronics connector. Align it to the camera and then push in firmly making sure that both the left and right side of the connector "click" into place. The AVCam300 should now be securely connected to the body of the AV300. If it can wiggle and has some play, then you have not connected it correctly.



Warning: Disconnecting the camera while the AV300 is on could damage the contents of the AV300 hard drive.

2 Buttons and Functions

Ready Indicator:

On: Ready to take a picture or video segment

Off: Camera module is off and pictures/video cannot be made

Blinking: Camera is busy. Ex: during auto focus or writing the image data to the hard drive.

Shutter Button:

Half way pressed:
Photo: set the focus

Fully pressed:

Photo: take a picture

Video: start/stop video recording

Flash Indicator:

On: Flash picture can be taken

Off: Flash disabled

Blinking: Flash unit charging

View finder

Zoom In Button

Zoom Out Button

Video: start / pause / recommence recording

Video: stop recording



3 Taking a Photo (Camera)

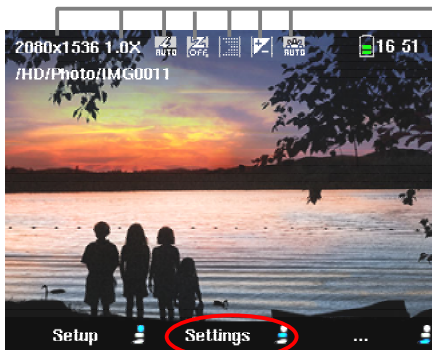


- 1 Select Camera from the main menu screen (use joystick to select then click on ENTER ●)
- 2 Look either through the viewfinder or at the AV300 screen and aim the camera at the subject to be photographed.
- 3 Press the shutter button down half-way to tell the AV300 to set the focus.

You must wait for approximately one second for the autofocus to make its automatic adjustment.

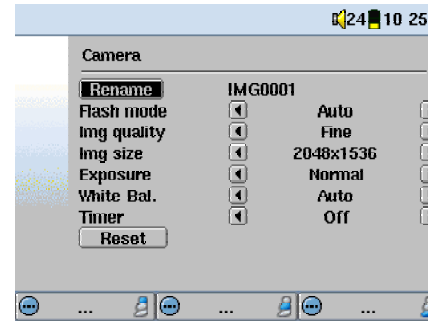
- 4 Fully press the button to take the snapshot.
- 5 The camera may take up to several seconds to store the JPEG image file on the hard disk of the AV300. It will store it in the folder HD/Photo or the folder you were in before pressing on the function key **Record**.

3.1 Understanding and setting the Camera parameters



Click on the center function button to access and change the Camera settings

- Resolution:** This will be resolution of the JPEG image (in pixels) when a picture is taken.
- Zoom:** The current zoom factor. Zoom 1x - 3x optical, 4x - 9.6x used the digital zoom.
- Flash status:** This shows the current flash mode. On, Off, Auto, or Red eye.
- Digital Zoom:** This shows whether or not the camera is currently using its digital zoom.
- Compression:** This is the current setting of the JPEG compression (Basic/Normal/Fine). For the best possible image (although it will take up more disk space) set this to Fine (fine dots icon).
- Exposure Value:** Displays EV if you have set the exposure setting to a non-default value.
- White Balance:** Shows the current type of while balance being used. Set according to lighting conditions.



Camera Settings Menu

Rename: This lets the user specify the file name of the next photo.

Flash mode: Choose which type of flash you want. **On** – use the flash on all pictures. **Off** – do not use the flash. **Auto** - camera uses the flash if there is not enough ambient light. **Red eye** – use a special flash system that helps reduce the red in subject's eyes.

Image quality (Image Quality): Choose what level of JPEG compression you want. Fine will give the best image quality, but the largest file size. **Basic** will give the smallest file size, but the images will not be as sharp.

Image size (Image size): Choose the size, in pixel resolution, that you want your image file to be. The higher the value, the more definition your picture will have. If you are going to print your pictures either on your own printer or by a digital photo developer, you should use the settings at the higher end. *Note: You can choose all image sizes in zoom level 1x – 3x. You must choose 2048x1536 to use zoom 4x – 10x, but your resolution will be diminished the higher you go on the digital zoom.*

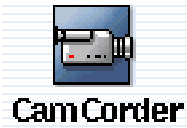
Exposure: Use this setting to expose the image more or less than normal. Values are in steps of 1/3 from -2 to +2. Setting it in the negatives, will decrease the amount of picture exposure and make your picture darker. Setting it positive will increase the exposure and make your pictures brighter. If your subject has a bright background, you may want to over expose your picture a little bit so that the person's face is more visible. If you are taking pictures where there is a lot of snow or the sun's reflection on water, you may want to reduce the exposure.

White Bal. (White Balance): Use the setting to change the color temperature of your photos. Set it to the ambient light conditions in order to best reproduce the colors of the objects in the photo (tungsten, fluorescent, daylight, or cloudy). Changing these settings will adjust the camera color so that even with these different types of light sources, the picture colors will be as close as possible to reality.

Timer: You can set the self-timer to 5 seconds or 10 seconds. The picture will be taken five or ten seconds after the shutter button is pressed.

Reset: Reset the values in this screen to the factory default settings.

4 Filming a Video Segment (Camcorder)



- 1 Select Camcorder from the main menu screen (use the joystick to select, then click on ENTER ●)
- 2 Look either through the viewfinder or at the AV300 screen and aim the camera at the subject to be filmed.
- 3 Press the shutter button all the way down (or the START ● button) to start the recording. A red circle ● on the top right of the AV300 screen indicates you are recording.

4 Press the shutter button all the way down again (or the STOP ✕ button) in order to stop the recording. The camera will take a few seconds to store the MPEG4 video file to the hard disk of the AV300. It will store the file in the folder HD/Video or the most recent folder you were in when you pressed the function button **Record**.

5 If you would like to pause the video recording, press on the START ● button. You will notice a pause symbol ⏸ appear. Press again on this button and the camera will recommence its recording.

4.1 Understanding and setting the Camcorder parameters



Zoom: This is the current zoom factor. For video ranges from 1x to 3x.

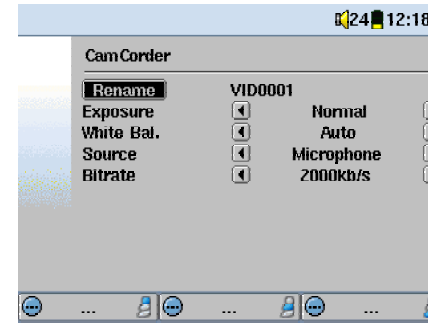
Exposure Value: Displays EV if you have set the exposure setting to a non-default value.

White Balance: Shows the current type of while balance being used; auto, tungsten, fluorescent, daylight, or cloudy.

VU Meter: Shows the sound intensity of the recording.

Gain Control: Use this control (joystick left/right) to decrease or increase the audio recording sensitivity.

Click on the center function button to access and change the Camcorder settings



Camera Settings Menu

Rename: This lets the user specify the file name of the next video segment.

Exposure: Use this setting to expose the image more or less than normal. Values are in steps of 1/3 from -1 to +1. Setting it in the negatives, will decrease the amount of picture exposure and make your picture darker. Setting it positive will increase the exposure and make your pictures brighter. If your subject has a bright background, you may want to over expose your picture a little bit so that the person's face is more visible. If you are taking pictures where there is a lot of snow or the sun's reflection on water, you may want to reduce the exposure.

White Bal. (White Balance): Use the setting to change the color temperature of your photos. Set it to the ambient light conditions in order to best reproduce the colors of the objects in the photo (tungsten, fluorescent, daylight, or cloudy). Changing these settings will adjust the camera color so that even with these different types of light sources, the picture colors will be as close as possible to reality.

Source: The default audio source for a video segment is the built-in microphone. To get even better sound for your videos, we encourage you to use an **External microphone** (such as the stereo microphone available as option). Further, you can even use a **line** level audio source for special recording situations.

Bitrate: The is analogous to the Image Quality setting in the camera mode. This setting determines the level of compression of the recorded video file. Set to 2000kb/s for the highest quality images (takes up more space on the hard drive), or to a lower setting to have smaller file sizes (you may have a slightly reduced image quality on setting lower than 1500kb/s). The default of 1500kb/s is fine for most situations.

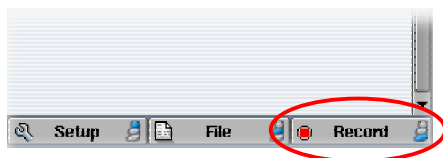
Note: Long continuous recording times (2 hours and more) can create files that are greater than 2GB each. The AV300 will create multiple files in order to make long recordings. Thus a very long video recording may produce files called VID0000, VID0001, and VID0002.

5 Viewing your photos and videos

You will, no doubt, have many files on your AV300 over time, and the best way to find them is to make a clear directory structure and store them in an orderly fashion. For example, you might want to use the path **HD/Video/Camcorder/Spring-vacation** for all your videos of your spring vacation instead of mixing everything together in **Video**. The more you store your photos, videos, and music in bulk in folders, the more difficult it will be to find the files you want to play.



❶ Going to the photo and video mode via the main screen icons



❷ Going to the photo and video mode via the Record button.

There are two ways of accessing the recording screens for taking photos or videos. If you use only method ❶ above, the default folders for saving photo images and video segments will be the **Photo** and **Video** folders respectively. Thus afterwards, you will find all your pictures or videos in those two folders. If you browse to a subfolder which is in the **Photo** folder or the **Video** folder and then use the **Record** function button ❷, then your photo or video file will be saved directly into that folder. This is much more convenient for storing your files in an orderly fashion. After you have done this once, each time you use the main screen icons to take a picture or video, it will save the files to the folder that you last used when you used the **Record** button.

To view a video or photo that you have taken, just use your browser to go to that file and click on **START** ❶. Remember, when viewing photos, you can zoom up to three levels of magnification on a photo if you like, or you can view multiple images on the screen (4 or 9 images).

6 Troubleshooting

Question: My photos are out of focus or blurred. What can I do?

Answer: This is often due to the fact of using the digital zoom or the optical zoom. When zooming in on objects, you must have a very steady hand to hold the camera when pressing the shutter button. Any shakiness is magnified and often renders the picture blurry. Also, shooting in low light conditions will force the shutter to stay open longer and thus any camera movement or fast movement in the camera's sight, will be blurred. Trying to take pictures of objects closer than 40cm (16 inches) will also give out of focus results.

Question: Sometimes while I am recording video, the zoom does not react or is slow in reacting. Is this normal?

Answer: During a video recording, there is a write process from the internal buffers to the hard drive every one minute or so. During this time (approximately five seconds), a red hourglass will appear on the top of the screen and you will not be allowed to zoom in or out during this write process.

Question: Can I change the exposure time when I take a photo?

Answer: The camera has an automatic exposure system and cannot be set manually. Depending on the lighting conditions and the flash mode, it will adjust anywhere from 1/1000 of a second to 1 second.

Problem: There is a flicker on the screen when using the camcorder.

Solution: This may be due to the indoor lighting. Try changing the screen display type by going to the **Setup > Display > TV Standard**. Use PAL for Europe and NTSC for North America.

Problem: The Camera and the Camcorder icons are grayed out and I cannot select them.

Solution: There are two possible reasons for this. One, the camera is not securely connected to the AV300. Take it off and when you reinsert it, make sure both sides of the connection click into place. The second reason may be that you connected the camera to the AV300 without shutting off the AV300 first. Shut off the AV300 and restart it again.

Problem: I cannot get the camera or camcorder to zoom in more than 3X.

Solution: The camera can zoom up to 9.6X only if the **Image size** parameter under **Settings** is set to 2048x1536. The camcorder zooms only up to 3X.

Problem: The AV300 unit freezes operation and none of the buttons do anything.

Solution: This is a rare case and the simplest thing to do is to hold down on the STOP/OFF ✖ button for 12 seconds. This will shut off the AV300. Turn it back on again and retry the operation.

Problem: The autofocus takes too long or its focus is incorrect.

Solution: The autofocus system needs to have contrast in the picture in order to focus correctly. Thus, it will have difficulties focusing on flat areas without contrast or sharp edges. Move the camera to have some other objects on the screen so that it can figure out how to make the focus.

7 Technical Support

- If technical support determines that your product needs to be returned, please contact the place of purchase to have your product repaired or replaced (depending on problem type). Customers who purchased directly from the Archos web site should fill out the form on the web site under Support : Product Returns : RMA Request form.
- There is an FAQ – Frequently Asked Questions section at the ARCHOS Website www.archos.com that can help answer many of your questions.
- If you need technical help, you may contact ARCHOS directly in your own language via these phone numbers. For other countries, please e-mail our technical support.

Telephone Support:

DO NOT USE PHONE SUPPORT FOR PRESALES INFORMATION. These numbers are to aid those who have technical difficulties / malfunctions. Our technicians can only help you with technical issues.

949-609-1400	(USA, Canada)	09-1745-6224	(Spain)
01 70 20 00 30	(France)	02-4827-1143	(Italy)
0207-949-0115	(UK)	02-050-405-10	(Netherlands)
069-6698-4714	(Germany)		

E-mail Support:

technical-support@archos.com (United States and Canada customers) English

support-technique@archos.com (Europe and rest of the planet) English and French

support.de@archos.com (Germany) German

To respond to your e-mails efficiently, when sending one, please indicate the product name and question type in the Subject of the e-mail.

For example:

To: technical-support@archos.com

Subject: AVCam300 – Video recording

ARCHOS AVCam300 Technical Specifications	
Photo	
File format:	JPEG compressed Basic/Normal/Fine
ISO:	Fixed at 100
Image sizes:	2048x1536, 1024x768, or 640x480 (Between 1x and 3x)
Auto focus range:	40 cm – infinity
Focal length	35mm equivalence: 41mm – 122mm
Auto focus:	Always on
Exposure Value (EV):	-2 to +2 steps of 1/3
White Balance:	Auto, Outdoors, Cloudy, Tungsten, Fluorescent
Flash modes:	off/auto/on/red eye
Optical zoom:	1x – 3x
Shutter speed:	Automatic depending on light/flash 1/1000 sec. – 1 sec.
Digital Zoom:	4x – 9x (Only in 2048x1536 image size setting) Zoom 3.9x makes 1600x1200 pixel image Zoom 5.4x makes 1280x960 pixel image Zoom 6.0x makes 1024x768 pixel image Zoom 7.8x makes 800x600 pixel image Zoom 9.6x makes 640x480 pixel image
Video	
Format video:	Mpeg4 320x240 resolution .avi file NTSC 20 frames/sec PAL 25 frames/sec
Format audio:	MP3 192kb/s stereo Constant Bit Rate (CBR)



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